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Technetium Tc-99m Demobesin-4

National Cancer Institute

Source

National Cancer Institute. *Technetium Tc-99m Demobesin-4*. NCI Thesaurus. Code C88276.

A radioconjugate composed of the synthetic bombesin (BB) analog demobesin-4 bound to the radioisotope technetium Tc 99m with receptor ligand and gamma-emitting radioisotope activities. Upon intravenous administration, demobesin-4 selectively binds to the gastrin-releasing peptide receptor (GRPR) expressed on the surfaces of various tumor cell types; upon internalization, tumor cells expressing GRPRs bound to technetium Tc 99m can then be visualized using scintigraphy. GRPR, a bombesin receptor subtype, is frequently overexpressed on the surface of tumor cells such as prostate and breast cancer cells. Demobesin-4 was developed for technetium Tc 99m imaging of GRPR-expressing tumor cells.